

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended)

A surface-mounting type optical device comprising:

a light-emitting member that is attached at the bottom of the a main body of the optical device a portion of which is inserted in a the engaging hole of a substrate, and that emits light in an the interior direction of the substrate;

an electrode member that is led out from a the side of the main body of the optical device, is connected to a pattern formed on a the surface of the substrate, and electrically connects the pattern and the light-emitting member; and

a step portion that is formed in part of the main body of the optical device, and engages the substrate.

Claim 2. (Currently Amended)

The surface-mounting type optical device according to Claim 1, wherein the step portion is formed on a the side of the main body of the optical device, which is opposite the side thereof from which the electrode member is led out.

Claim 3. (Currently Amended)

A surface-mounting type optical device comprising:

a light-receiving member that is attached at a the bottom of a the main body of the optical device a portion of which is inserted in an the engaging hole of a substrate, and that receives light emitted from an the interior direction of the substrate;

an electrode member that is led out from a ~~the~~ side of the main body of the optical device, is connected to a pattern formed on a ~~the~~ surface of the substrate, and electrically connects the pattern and the light-receiving member; and

a step portion that is formed in part of the main body of the optical device, and engages the substrate.

Claim 4. (Currently Amended)

The surface-mounting type optical device according to Claim 3, wherein the step portion is formed on the side of the main body of the optical device, which is opposite a ~~the~~ side thereof from which the electrode member is led out.

Claim 5. (Currently Amended)

A surface-mounting type optical device comprising:

a light-emitting member that is attached at a ~~the~~ bottom of the main body of a ~~the~~ optical device a portion of which is inserted in a ~~the~~ engaging hole of a substrate, and that emits light in a ~~the~~ interior direction of the substrate;

a step portion that is formed in part of the main body of the optical device, and engages the substrate; and

a fixing electrode that is formed on the step portion, is connected to a pattern formed on a ~~the~~ surface of the substrate, and electrically connects the pattern and the light-emitting member.

Claim 6. (Currently Amended)

A surface-mounting type optical device comprising:

a light-receiving member that is attached at a ~~the~~ bottom of a ~~the~~ main body of the optical device a portion of which is inserted in an ~~the~~ engaging hole of a substrate, and that receives light emitted from a ~~the~~ direction of an ~~the~~ interior of the substrate;

a step portion that is formed in part of the main body of the optical device, and engages the substrate; and

a fixing electrode that is formed on the step portion, is connected to a pattern formed on a ~~the~~ surface of the substrate, and electrically connects the pattern and the light-receiving member.